

REMARKS/ARGUMENTS

Claims 1-18 are currently a part of this application.

Claim 1 has been amended in this present Response.

Reconsideration of this application, as amended, is respectfully requested.

A. Claim Rejection Under 35 U.S.C. § 112, Second Paragraph

Claim 1 of the present application has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner queries “how the emulsifier recited in claim 1 causes the fibers to be separated when the disclosure states that the agitation separates the fibers.” (Office Action, Page 2).

Applicant has amended claim 1 to more clearly recite that the emulsifier generates entrained air and the agitating causes the separation of the glass fibers into individual strands (not the emulsifier). In view of this amendment, Applicant submits that the rejection to claim 1 under 35 U.S.C. § 112, second paragraph is now moot and respectfully requests that said rejection be withdrawn.

B. Claim Rejection Under 35 U.S.C. § 103

Claims 1-6 and 9-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 5,518,586 to Mirous (hereafter “Mirous”) in view of U.S. Pat. No. 6,228,281 to Sage (hereafter “Sage”). Claims 7 and 8 are rejected under 35 U.S.C. § 103(a) as being

unpatentable over Mirous in view of Sage and further in view of U.S. Pat. No. 6,432,482 to Jaffee et al. (hereafter “Jaffee”).

Specifically, the Examiner asserts that Mirous generally teaches all the steps of claim 1 of the instant invention. The Examiner admits that Mirous does not disclose the composition or properties of the lubricant, and further, that Mirous does not disclose that the sized fibers have a loss on ignition between 0.01% and about 0.75%. However, the Examiner states that Sage discloses treating glass fibers with a sizing composition comprising a cationic lubricant that can be a partially amidated polyalkylene imine such as a reaction of C2 to C18 fatty acids with a polyethylene imine having a molecular weight from about 800 to about 50,000, and that the product has a residual amine value from about 200 to about 800. The Examiner states that Sage discloses that the amount of cationic lubricant is present in an amount from about 0.01% to about 0.1% by weight of the composition, and that Sage teaches that the sizing composition helps prevent breakage of fibers during handling and reduces the fuzz on the surface of the fibers. The Examiner also asserts that the “sized fibers disclosed by Sage would inherently have the claimed LOI because, where the claimed and prior art apparatus or product are identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established.” (Office Action, Page 4)

The Examiner concludes that the art of Mirous, Sage, and the instant invention are analogous as they pertain to the art of treating glass fibers. Therefore, the Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to use the claimed sizing composition in the mat of Mirous in view of Sage to reduce the breakage of fibers and creation of fuzz on the fiber surface.

Applicant requests reconsideration of the present rejection. Independent claim 1, a method claim, has been amended to recite that when the glass fibers are separated by immersing the glass fibers in an aqueous dispersant medium, that aqueous dispersant medium includes an emulsifier, and that when the slurry formed is agitated, the emulsifier generates entrained air and the strands are separated by agitating the slurry formed by the aqueous dispersant medium and the emulsifier. Independent claim 11 was previously amended in similar fashion.

Mirous is directed to the modification of a urea-formaldehyde resin with a water insoluble anionic phosphate ester as a binder for glass mat obtained from a cationic hydroxylethyl cellulose-containing white water system. According to Mirous in Col 4, lines 1-3, “[T]he amount of hydroxylethyl cellulose used should be effective to provide the viscosity needed to suspend the glass particles in the white water.”

Unlike Mirous though, amended claim 1 of the instant application does not utilize a water insoluble anionic binder (i.e., anionic phosphate ester) in a white water system. While claim 1 recites agitating a slurry having an emulsifier therein to generate entrained air and cause the separation glass fibers into individual strands, Claim 1 does not recite, nor require the use of an anionic binder. In fact, as recited on page 6, lines 22-24 of the instant application, it is the thermosetting resin that acts as the binder. According to Mirous, the addition of an anionic phosphate ester to the urea-formaldehyde resin acts to negate the cationic charge of hydroxyethyl cellulose that come in contact with the resin on the glass fibers. Unlike Mirous, the process for preparing a glass fiber mat as recited in amended claim 1 does not utilize a cationic hydroxyethyl cellulose dispersant and thus does not require negation of the cationic charge with an anionic binder.

As such, an element of the present invention as recited in amended claim 1 of the present application is not found in Mirous. Combining Mirous with Sage does not cure this defect since Sage teaches the use of a combination of cationic lubricants and nonionic lubricants in low concentrations for achieving increased resistance to fuzz which develops on broken ends of the glass fibers.

It has been held by the Courts that to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). The cited references of Mirous and Sage, individually or in combination, completely fail to teach the claimed limitations of independent claims 1 and 11.

With respect to the §103(a) rejection of dependent claims 7 and 8, the cited references fail to disclose all the elements of independent claim 1 from which these claims depend. Accordingly, since the dependent claims 7 and 8 recite additional unique elements and/or limitations, these claims remain patentable.

Therefore, Applicants respectfully request that the 35 U.S.C. §103(a) rejection of claims 1-6 and 9-18 under Mirous in view of Sage be withdrawn, and the 35 U.S.C. §103(a) rejection of claims 7 and 8 under Mirous in view of Sage and Jaffee be withdrawn as well. Accordingly, Applicants respectfully request allowance of claims 1-18.

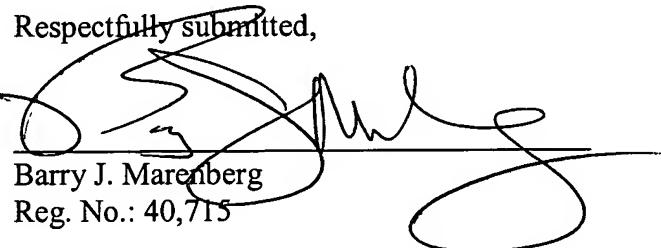
In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorney would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

C. Conclusion

In view of the aforementioned remarks and amendments, the Applicants believe that each of the pending claims is in condition for allowance and respectfully requests that the objections and rejections in the present Office Action be withdrawn. If, upon receipt and review of this amendment, the Examiner believes that the present application is not in condition for allowance and that changes can be suggested which would place the claims in allowable form, the Examiner is respectfully requested to contact Applicant's undersigned counsel at the number provided below.

Please charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 03-1250 (Ref. No. 12080001-000035).

Date: May 15, 2006

Respectfully submitted,

Barry J. Marenberg
Reg. No.: 40,715